

ABSTRACT

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The invention relates to an estimate of the seismic illumination fold (x, p) in the migrated 3D domain at an image point x , for a dip of vector p characterized in that the illumination fold $I(z, p; s, r)$ is estimated for each (source s , receiver r) pair in the seismic survey, by applying the following steps: - determination of the reflection travel time $t_r(x_r(p); s, r)$ from the source s to the specular reflection point z , on the plane reflector passing through the image point x and perpendicular to the dip vector p , and then return to the reflector r ; starting from the diffraction travel time $t_d(z; s, r)$ from the source to the said image point x and then return to the reflector r ; - incrementing the said illumination fold $I(x, p; s, r)$ related to the said (source s , receiver r) pair as a function of the difference between the diffraction travel time $t_d(x; s, r)$ and the reflection travel time $t_r(x_r(p); s, r)$.

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